

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-86 (Cancelled)

87. (New) A guide wire for use in a re-canalising process for re-canalising a vascular occlusion in a human or animal subject, the guide wire extending between a proximal end and a distal end, and defining a longitudinally extending main central axis, characterised in that the guide wire terminates at its distal end in a terminal member extending axially from the guide wire, the terminal member tapering to a distal leading edge portion for engaging and gradually opening the occlusion as the terminal member is urged therethrough.

88. (New) A guide wire as claimed in Claim 87 in which the leading edge portion is an elongated leading edge portion.

89. (New) A guide wire as claimed in Claim 87 in which the leading edge portion extends in a direction at an angle relative to an axial direction defined by the main central axis.

90. (New) A guide wire as claimed in Claim 87 in which the leading edge portion extends in a direction at an angle in the range of 1° to 90° relative to an axial direction defined by the main central axis, and preferably, the leading edge portion extends in a direction at an

angle in the range of 30° to 90° relative to an axial direction defined by the main central axis, and preferably, the leading edge portion extends in a direction at an angle of approximately 60° relative to an axial direction defined by the main central axis, and advantageously, the leading edge portion extends in a direction substantially transversely of the main central axis.

91. (New) A guide wire as claimed in Claim 87 in which a first surface portion of the terminal member converges towards an opposite second surface portion thereof towards the leading edge portion, and preferably, the first surface portion of the terminal member is planar, and alternatively, the first surface portion of the terminal member is convex in a longitudinal direction relative to the main central axis, and alternatively, the first surface portion of the terminal member is concave in a longitudinal direction relative to the main central axis, and alternatively, the first surface portion of the terminal member is sequentially convex and concave in a longitudinal direction relative to the main central axis.

92. (New) A guide wire as claimed in Claim 91 in which a distal portion of the first surface portion of the terminal member is concave in a longitudinal direction relative to the main central axis, and preferably, a proximal portion of the first surface portion of the terminal member is convex in a longitudinal direction relative to the main central axis, and advantageously, the first surface portion of the terminal member is convex in a transverse direction relative to the main central axis, and preferably, the second surface portion of the terminal member converges towards the first surface portion towards the leading edge portion,

and preferably, the second surface portion of the terminal member is planar, and alternatively, the second surface portion of the terminal member is convex in a longitudinal direction relative to the main central axis, and alternatively, the second surface portion of the terminal member is concave in a longitudinal direction relative to the main central axis, and alternatively, the second surface portion of the terminal member is sequentially convex and concave in a longitudinal direction relative to the main central axis.

93. (New) A guide wire as claimed in Claim 91 in which a distal portion of the second surface portion of the terminal member is concave, and preferably, a proximal portion of the second surface portion of the terminal member is convex, and advantageously, the second surface portion of the terminal member is convex in a transverse direction relative to the main central axis, and preferably, the first and second surface portions terminate in the leading edge portion to define the leading edge portion as a chisel edge, and preferably, the first and second surface portions of the terminal member define an included angle in the range of 1° to 179° , and advantageously, first and second surface portions of the terminal member define an included angle in the range of 5° to 90° , and ideally, the first and second surface portions of the terminal member define an included angle of approximately 15° .

94. (New) A guide wire as claimed in Claim 91 in which the first and second surface portions of the terminal member are joined by spaced apart opposite third and fourth surface portions, and preferably, the leading edge portion of the terminal member extends between the

third and fourth surface portions, and advantageously, the third and fourth surface portions of the terminal member are planar surfaces, and alternatively, the third and fourth surface portions of the terminal member are convex in a transverse direction relative to the main central axis.

95. (New) A guide wire as claimed in Claim 94 in which the third and fourth surface portions of the terminal member are parallel to each other in an axial direction defined by the main central axis, and alternatively, the third and fourth surface portions of the terminal member taper towards the leading edge portion, and preferably, the third and fourth surface portions of the terminal member define an included angle in the range of 1° to 179° , and advantageously, the third and fourth surface portions of the terminal member define an included angle in the range of 5° to 90° , and ideally, the third and fourth surface portions of the terminal member define an included angle of approximately 15° .

96. (New) A guide wire as claimed in Claim 94 in which the third surface portion of the terminal member is convex in a longitudinal direction relative to the main central axis, and alternatively, the third surface portion of the terminal member is concave in a longitudinal direction relative to the main central axis, and alternatively, the third surface portion of the terminal member is sequentially convex and concave in a longitudinal direction relative to the main central axis.

97. (New) A guide wire as claimed in Claim 94 in which a distal portion of the third surface portion of the terminal member is concave in a longitudinal direction relative to the main central axis, and preferably, a proximal portion of the third surface portion of the terminal member is convex in a longitudinal direction relative to the main central axis, and advantageously, the fourth surface portion of the terminal member is convex in a longitudinal direction relative to the main central axis, and alternatively, the fourth surface portion of the terminal member is concave in a longitudinal direction relative to the main central axis, and alternatively, the fourth surface portion of the terminal member is sequentially convex and concave in a longitudinal direction relative to the main central axis, and preferably, a distal portion of the fourth surface portion of the terminal member is concave in a longitudinal direction relative to the main central axis, and preferably, a proximal portion of the fourth surface portion of the terminal member is convex in a longitudinal direction relative to the main central axis.

98. (New) A guide wire as claimed in Claim 91 in which the leading edge portion is radiused from the first surface portion of the terminal member to the second surface portion thereof.

99. (new): A guide wire as claimed in Claim 87 in which the leading edge portion is radiused in plan view, and preferably, the leading edge portion is convex in plan view, and alternatively, the leading edge portion is concave in plan view.

100. (New) A guide wire as claimed in Claim 87 in which the maximum outer transverse cross-sectional area of the terminal member is substantially similar to the outer transverse cross-sectional area of the guide wire adjacent the terminal member, and preferably, the outer transverse cross-sectional area of the terminal member adjacent the guide wire is similar to the outer transverse cross-sectional area of the guide wire adjacent the terminal member so that the outer surface of the terminal member is in axial alignment with the outer surface of the guide wire adjacent the terminal member, and advantageously, the guide wire adjacent the terminal member and the terminal member adjacent the guide wire are of circular transverse cross-section, and are of substantially similar outer diameters, and preferably, the transverse width of the leading edge portion does not exceed the transverse width of the guide wire adjacent the terminal member in a plane containing the leading edge portion and extending parallel to the main central axis.

101. (New) A guide wire as claimed in Claim 87 in which the guide wire comprises an elongated core wire extending from the proximal end to the distal end, and preferably, the terminal member is secured to the distal end of the core wire, and advantageously, the core wire terminates in a distal portion of rectangular transverse cross-section defining first and second opposite major surfaces joined by first and second opposite minor surfaces for facilitating bending thereof for offsetting the terminal member relative to the main central axis for facilitating guiding of the terminal member into a branched vessel of a vascular system, and

preferably, the first and second major surfaces of the distal portion of the core wire converge towards each other towards the distal end thereof, and alternatively, the first and second major surfaces of the distal portion of the core wire extend substantially parallel to each other, and preferably, the first and second minor surfaces of the distal portion of the core wire diverge from each other towards the distal end thereof, and alternatively, the first and second minor surfaces of the distal portion of the core wire extend substantially parallel to each other, and preferably, a reinforcing means is provided on the distal portion of the core wire for minimising axial twisting thereof.

102. (New) A guide wire as claimed in Claim 101 the first and second major surfaces of the distal portion of the core wire define therebetween a central major plane extending parallel to the main central axis and cutting the first and second minor surfaces, and the distal portion is curved in the central major plane for offsetting the terminal member relative to the main central axis for in turn facilitating guiding of the terminal member into a branched vessel of a vascular system, and preferably, the central major plane defined by the first and second major surfaces of the distal portion of the core wire extends transversely of a plane containing the leading edge portion of the terminal member and extending parallel to the main central axis, and alternatively, the central major plane defined by the first and second major surfaces of the distal portion of the core wire extends substantially parallel to a plane containing the leading edge portion of the terminal member and extending parallel to the main central axis, and preferably, the core wire

extending from the distal portion thereof to the proximal end is of circular transverse cross-section.

103. (New) A guide wire as claimed in Claim 101 a sleeve extends along the core wire from the terminal member and terminates at a location intermediate the distal end and the proximal end of the core wire, and preferably, the sleeve is of external circular transverse cross-section, and advantageously, the external diameter of the sleeve is substantially similar to the diameter of the terminal member adjacent the guide wire, and preferably, the sleeve comprises a helical coil located around the core wire adjacent the distal end thereof, and advantageously, a plug extends from the terminal member adjacent a proximal end thereof for engaging an internal bore defined by the sleeve for securing the sleeve to the terminal member, and preferably, the terminal member is secured to the sleeve by brazing or soldering.

104. (New) A guide wire as claimed in Claim 101 in which a core wire engaging bore extends into the terminal member for engaging the distal end of the core wire, and preferably, the core wire engaging bore extends axially into the terminal member, and advantageously, the terminal member is secured to the core wire by brazing, or soldering, welding or adhesive, and preferably, the soldering, brazing, welding or adhesive material is a radiopaque material.

105. (New) A guide wire as claimed in Claim 87 in which at least a portion of the terminal member is of radiopaque material, and preferably, at least a portion of the terminal

member is of a magnetic material for facilitating urging of the terminal member through a vascular system by a magnetic urging means located externally of the subject, and advantageously, the terminal member is of a magnetic material, and preferably, a distal portion of the guide wire is of a magnetic material for facilitating urging of the terminal member through a vascular system by a magnetic urging means located externally of the subject.

106. (New) In combination the guide wire as claimed in Claim 105 and a magnetic urging means for urging the terminal member through a vascular occlusion, and preferably, the magnetic urging means urges the terminal member through a vascular system to the vascular occlusion.

107. (New) A method for re-canalising a vascular occlusion in a human or animal subject, the method comprising urging the terminal member of the guide wire of Claim 87 through the occlusion for gradually opening thereof, and preferably, the terminal member is urged by the guide wire through a vascular system to the occlusion prior to being urged through the occlusion, and preferably, the terminal member is urged through the occlusion by a magnetic urging means located externally of the subject, and advantageously, the terminal member is urged through a vascular system by a magnetic urging means located externally of the subject.